REMARKS

After entry of the present Amendment, claims 1-9 are pending in the application with claims 1 and 5 in independent form. Claims 6-9 are new and have been added to quantify the light transmission through the insulation layer. Support for new claims 6-9 can be found at least in paragraph [0013] of the subject application as filed. Thus, no new matter is introduced via the present Amendment. No claims are cancelled or withdrawn in the present Amendment.

Claims 1, 4, and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,116,472 to Wolter et al. (hereinafter Wolter et al.). In addition, claims 2 and 3 stand rejected under 35 U.S.C. §103(a) as being obvious over Wolter et al. in view of United States Patent No. 4,612,409 to Hamakawa et al (hereinafter Hamakawa et al.).

As the Examiner is aware, to properly establish anticipation under 35 U.S.C. §102, a reference must teach each and every element of a claim. Because Wolter et al. fails to teach or disclose each and every element of independent claims 1 and 5, as described in greater detail below, the Examiner's rejections under 102(b) are respectfully overcome.

The Examiner contends that Wolter et al teaches a process of making a substrate for printed circuit boards. In addition, the Examiner opines that the substrate of Wolter et al. includes (a) a metal layer comprising aluminum and (b) an electrical insulation layer comprising a crosslinkable organic silane compound. The Examiner also contends that a metallic conductor track is printed onto the substrate surface of Wolter et al.

In contrast, claims 1 and 5 of the subject application, which are independent claims, are directed toward a metal base circuit substrate and a method of manufacturing the metal base circuit substrate, respectively. The metal base circuit substrate of the present invention comprises (a) a metal base substrate comprising aluminum or aluminum alloy, (b) an insulation layer formed from a transparent cross-linked silicone body, and (c) and an electric circuit formed directly on the insulation layer.

The Examiner is respectfully reminded that "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). The Applicants point out that the Examiner failed to address the claim term transparent in her rejection of claims 1 and 5. In that regard, the Applicants also point out that Wolter et al. fails to teach or otherwise disclose a transparent insulation layer, as claimed in the subject invention. As such, Wolter et al. fails to teach or disclose each and every element of the claimed invention. The failure of Wolter et al. to teach or otherwise disclose a transparent insulation is not surprising in view of the fact Wolter et al. also fails to disclose a metal base circuit substrate of an optical device or a method of manufacturing such a metal base circuit substrate of an optical device, as claimed in the subject application. The metal base circuit substrate claimed in the subject application reflects light and removes heat generated by operating the optical device via radiation. The method disclosed by Wolter et al., which fails to even teach transparency of an insulation layer, would not be suitable for optical devices due to the inability of the insulation layer to remove heat and reflect light. As such, not only

does Wolter et al. fail to teach each and every element of the invention claimed in the subject invention, but upon a full reading of Wolter et al., one of skill in the art would have no reason whatsoever to manufacture a metal base circuit substrate for an optical device including a transparent insulation layer, as claimed in the subject application.

Though Wolter et al. briefly speaks to the color of the insulation layer, it can in no way be interpreted to teach transparency of the insulation layer. In particular, Example 1 of Wolter et al. discloses a colorless to bright yellow base resin used to form a coating, which the Examiner correlates to the insulation layer of the present invention. The coating of Example 1 of Wolter et al., once applied to an aluminum substrate, is described as colorless (See Column 11, Lines 31-34). As known in the art, the term colorless does not have the same meaning as the term transparent. The term colorless simply means without color. In stark contrast, those of skill in the art readily appreciate that the term transparent means transmitting light rays so that objects on the other side may be seen. Thus, an object may be colorless while still being opaque, i.e., not transparent, or an object may have a color while still being transparent. Stated differently, the term colorless and the term transparent have little to no have a relation to one another. In addition, Example 2 of Wolter et al. discloses a colorless to bright yellow base resin used to form coatings, which the Examiner correlates to the insulation layer of the present invention. The coatings of Example 2 of Wolter et al. are described as golden-yellow (See Column 12, Lines 41-42). Wolter et al. fails to disclose an electrical insulation layer comprising a transparent cross-linked silicone body, as claimed in

the subject application. Therefore, Wolter et al. fails to teach each and every element of claims 1 and 5, and the Examiner's rejection of these claims is respectfully traversed.

In addition, because claims 2 and 3 depend from claim 1, the Examiner's rejection of these claims as being obvious over Wolter et al. in view of Hamakawa et al. is moot in view of the fact that the Applicants have traversed the Examiner's rejection of claim 1.

In view of the foregoing, the Applicants submit that independent claims 1 and 5, as well as claims 2 – 4 and 6-9, which depend from claim 1 or 5, respectively, are both novel and non-obvious over the prior art including over Wolter et al., as well as Wolter et al. in view of Hamakawa et al. As such, the Applicants believe the subject application is in condition for allowance, and such allowance is respectfully requested.

This Response is timely filed; thus, it is believed that no additional fees are due. However, if necessary, the Commissioner is authorized to charge Deposit Account 08-2789 in the name of Howard & Howard Attorneys PLLC for any additional fees or to credit the account for any overpayment.

Respectfully submitted,

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Date

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